ABSTRACT

Production processes of an inorganic fiber-bonded ceramic component comprising inorganic fibers mainly comprising Si, M, C and O, an inorganic substance mainly comprising Si and O and boundary layers comprising carbon as a main component; and an inorganic fiber-bonded ceramic component comprising inorganic fibers which are composed mainly of a sintered structure of SiC and contain specific metal atoms and boundary layers composed mainly of carbon, wherein a preliminary shaped material is set in a carbon die, covered with a carbon powder and then hot-pressed to load a pseudo-isotropic pressure on the preliminary shaped material; and a highly heat-resistant inorganic fiber-bonded ceramic component almost free from the occurrence of peelings of surface fibers or delamination, wherein fibers are aligned in a surface shape.

The processes allow primary-molding of a highly heat-resistant inorganic fiber-bonded ceramics having excellent heat resistance and smoothness and high fracture resistance in a shape similar to a component shape.